

REMARKS/ ARGUMENTS

Favorable reconsideration of this application is requested in view of the amendments above and the remarks which follow.

Disposition of the Claims

Claims 1, 2, 4-9, 13, 15, 20, 21, 23, and 24 remain in the application. Claims 16-19 have been cancelled in view of a restriction requirement. Claim 24 has been added. Claim 1 has been amended.

Rejections under 35 U.S.C. §103

Claims 1, 2, 4-9, 13, 15, and 20-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Blackwell et al. (U.S. Pat. No. 5,152,819) in view of Flamenbaum et al. (U.S. Pat. No. 3,806,570) and Roba et al. (U.S. Pat. No. 6,672,110). Claim 22 has been canceled. Accordingly, rejection of claim 22 is moot. Reconsideration of the rejection of claims 1, 2, 4-9, 13, 15, 20, 21, and 23 is respectfully requested.

Amended claim 1 recites a method for producing a fused silica glass containing titania. The method comprises synthesizing particles of silica and titania by delivering a mixture of a silica precursor and a titania precursor to a burner. The method further includes growing a column of solid porous preform by successively depositing the particles on a deposition surface at a temperature below a minimum temperature at which the particles can consolidate either partially or fully into dense glass while successively translating the deposition surface away from the burner. The method further includes subsequently consolidating the porous preform into dense glass.

None of the cited references disclose or teach “growing a column of solid porous preform by successively depositing the particles on a deposition surface at a temperature below a minimum temperature at which the particles can consolidate either partially or fully into dense glass while successively translating the deposition surface away from the burner,” as recited in claim 1. The porous preform produced by the method of the invention is solid, i.e., not hollow, and this is achieved by depositing the particles on the deposition surface while successively translating the deposition surface away from the burner. In the cited references, the particles are

deposited on the surface of a mandrel. The mandrel surface is moved back and forth and rotated relative to the burner to grow a hollow porous preform.

From the foregoing, claim 1, as amended, is patentable over the cited references. Withdrawal of the rejection of claim 1 is respectfully requested. Claims 2, 4-9, 13, 15, 20, 21, and 23, being dependent on claim 1, are likewise patentable in view of the foregoing arguments.

New Claims

Added claim 24 recites that the deposition surface is rotated relative to the burner while successively depositing the particles on the deposition surface.

Conclusion

The rejected claims have been amended and/or shown to be allowable over the prior art. Applicant believes that this paper is fully responsive to each and every ground of rejection cited by the Examiner in the Office Action dated February 13, 2004, and respectfully requests that a timely Notice of Allowance be issued in this case.

Please apply any charges not covered, or any credits, to Deposit Account 03-3325.

Respectfully submitted,

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Adenike Adewuya
Adenike A. Adewuya
Reg. No. 42,254
Tel.: (281) 477-3450